laciniate; leaves dimorphous, those of some branches merely dentate, those of other branches all or nearly all digitately trilobate, the petioles slender, 2-7 cm. long, glabrous; blades of the simple leaves ovate-oblong to ovate, 8.5-12.5 cm. long, 3.5-6 cm. wide, acuminate, at base obtuse or broadly cuneate, irregularly sinuate-serrate, the teeth obtuse, a few of them often much larger than the others, the leaves entire near the base or below the middle, 3-nerved at base, the lateral nerves about 5 on each side, arcuate-ascending; lobed blades about 13 cm. long and broad, broadly cuneate at base, lobed to within 3 cm. of the base, the lobes narrowly oblong, about 2 cm. wide, attenuate to apex, irregularly sinuate-serrate, the sinuses between the lobes rounded; leaves all subcoriaceous, glabrous, deep green above, paler beneath, minutely punctate, the venation prominent beneath; umbels many-flowered, arranged in a short-pedunculate terminal umbel, the peduncles of the ultimate umbels stout, 1.5-2 cm. long, naked or bearing near the base a short cuplike sheathing bract; pedicels stout, 4-5 mm. long, sparsely and minutely puberulent or glabrate; hypanthium hemispheric, the calyx very short, 3 mm. broad; petals triangular-oblong, acute, glabrous, 2-2.5 mm. long; stamens shorter than the petals, the filaments short, subulate; fruit subglobose, 5-celled, 5-6 mm. broad, glabrous; styles united for half their length.

Type in the U. S. National Herbarium, no. 677609, collected in wet forest of Cuesta de las Palmas, southern slope of Cerro de la Horqueta, Chiriquí, Panama, altitude 1,700 to 2,100 meters, March, 1911, by H. Pittier (no. 3213).

Here belong, probably, leaf specimens collected by myself (no. 41973) at Laguna de la Escuadra, northeast of El Copey, Costa Rica, at about 2,100 meters. These leaves are very large, about 30 cm. long, and deeply 5-lobed, the lobes coarsely serrate, or the terminal one pinnately lobed.

Among all the other North American species of *Dendropanav* (Gilibertia) this may be recognized at once by the toothed leaves.

ZOOLOGY.—A new genus and species of frog from Tibet.¹ Leonhard Stejneger, U. S. National Museum.

In his Monograph of the South Asian, Papuan, Melanesian, and Australian Frogs of the genus Rana, Boulenger² described (p. 107) a series of ten frogs from Southern Tibet under the name of Rana pleskei (Guenther). The three localities: Lake Yamdok, 15,000 feet altitude, Kamba Jong [Kampadzong], and Gyantse are situated south of the Brahmaputra on the north slope of the Himalayas, north of the frontiers of Sikkim and Bhutan. Guenther's types came from western Szechwan, China.

The National Museum having recently received from the Rev. D. C. Graham good material of the true *Nanorana pleskei* and also, in exchange with the British Museum through the kindness of H. W. Parker, two specimens from Tingri, Tibet, not far from the general

¹Received May 7, 1927.

² Rec. Indian Mus. 20: 1-226. 1920.

region whence came Boulenger's material, I am in a position to affirm that the latter belongs to a new species totally different from Guenther's species. In further confirmation, Dr. Thomas Barbour was kind enough to lend me for comparison a specimen from Yatong [Yathung] in the projecting angle of Himalayan Tibet between Sikkim and Bhutan.

Altirana, new genus

Diagnosis.—"Vomerine teeth, if present, much reduced; no tympanum; no stapes; fingers and toes not dilated at the tips; outer metatarsals separated by web in their distal third or fourth only; zygomatic branch of the squamosal short; omosternal style not forked at the base; terminal phalanges obtuse." (Boulenger.)

To this should be added that the precoracoid is as well developed as in Rana typified by R. temporaria.

Altirana parkeri, new species

Diagnosis.—Digits without terminal dilatations and horizontal grooves; tympanum absent; outer metatarsals separated in their distal third; no dorsolateral glandular fold; no long tooth-like protruberance in front of lower jaw; toes fully webbed; subarticular tubercles present but rather flat and indistinct; fifth toe slightly shorter than third; second and fourth fingers subequal; tibiotarsal articulation reaching the shoulder.

Type-locality.—Tingri, Tibet, at 15,000 feet altitude. Type.—U. S. National Museum, No. 72328.

Measurements	U.S.N.M. No. 72328 ♂ ad. Millimeters	
Tip of snout to vent	25.00	34.00
"" " anterior border of eye		
""""nostril	3.25	3.75
Nostril to eye		
Longitudinal diameter of eye		
Distance between nostrils	3.00	3.00
Interorbital width	2.00	2.00
Width of upper eyelid	\dots 2.50 \dots	3.00
Width of head		
Fore leg	16.00	16.00
Hind leg from vent to tip of fourth toe	44.00	44.00
" " groin " " " " "	43.00	42.00
Tibia		
Foot from heel to tip of fourth toe	26.00	23.00

In view of Boulenger's careful account of the Himalayan specimens a detailed description of the type is not deemed necessary here, but I would call attention to the fact that Boulenger expressly states (p. 108) that males are "without secondary sexual characters," while the specimens before me clearly demonstrate the presence of a large nuptial pad-like swelling on the inner side of the first finger which is covered with minute dark spinules, as are also the

bases of the first and second fingers, a feature strongly developed in the Museum of Comparative Zoology specimen, and only slightly less in the type. The inference is that Boulenger's specimens were not collected during the breeding season.

Boulenger's reference of Nanorana pleskei to the genus Rana and especially his statement that the pectoral arch is as in Rana temporaria, which has strong and well ossified precoracoids, and that the tympanum is completely suppressed, undoubtedly misled Dr. Vogt into instituting the genus Montorana, with the species M. ahli, for specimens possessing a tympanum and having the precoracoid "very weak, thin as a thread, only imperfectly ossified." As a matter of fact, Vogt's Montorana ahli is the true Nanorana pleskei. Dr. Tsarevski, who at my request examined the types of the latter, writes me that the precoracoid "is very slender, very thin, with slight ossification."

It is consequently plain that Boulenger's Rana pleskei, which he regards as forming a distinct subgenus Nanorana, does not belong to it at all. He considers it as "a very aberrant species," "as a dwarfed, degraded form derived from the Rana liebigii group with which it is connected to a certain extent by R. blanfordii." It is quite possible that Boulenger is correct in this phylogeny, but the characters and combination of characters indicated in the diagnosis of his subgenus, and which I have adopted for the genus as above, are sufficient to set it off by itself from the rest of the unwieldy genus Rana.

I have named the species for Dr. H. W. Parker, in charge of the herpetological collection of the British Museum, in recognition of his help in clearing up important points connected with this investigation.

PROCEEDINGS OF THE ACADEMY AND AFFILIATED SOCIETIES

PHILOSOPHICAL SOCIETY

950TH MEETING

The 950th meeting was held at the Cosmos Club, February 5, 1927. Program: N. H. Heck, Observations while passing through an unusual waterspout formation on the Pacific Ocean. The paper describes observations in the Pacific Ocean of water spout phenomena while actually in the formation by one who is not a meteorologist but who has had occasion during survey work in small craft to watch the weather very closely. Four spouts are described. The first was normal and of the type ordinarily seen. The second was very large, probably 1000 feet in diameter, forming a cylinder dropping from the clouds. With the spout complete the spray could be seen rising and falling on the edge of the spout as in a fountain, at least 600 feet above the surface of the sea. Surface of the sea was broken water after the spout disappeared instead of regular waves due to wind. The third spout was seen in process of formation when directly under cloud in which it was forming and it was seen that it formed between bands of cloud moving in